Section 1. Registration Information

Source Identification

Facility Name:	ExxonMobil Torrance Refinery
Parent Company #1 Name:	Exxon Mobil Corporation
Parent Company #2 Name:	

Submission and Acceptance

Submission Type:	Re-submission
Subsequent RMP Submission Reason:	5-year update (40 CFR 68.190(b)(1))
Description:	
Receipt Date:	19-Jun-2014
Postmark Date:	19-Jun-2014
Next Due Date:	19-Jun-2019
Completeness Check Date:	18-Aug-2015
Complete RMP:	Yes
De-Registration / Closed Reason:	
De-Registration / Closed Reason Other Text:	
De-Registered / Closed Date:	
De-Registered / Closed Effective Date:	
Certification Received:	Yes

Facility Identification

EPA Facility Identifier:	1000 0015 2504
Other EPA Systems Facility ID:	90509MBLLC3700
Facility Registry System ID:	1100 0047 5263

Dun and Bradstreet Numbers (DUNS)

Facility DUNS:	
Parent Company #1 DUNS:	1294834
Parent Company #2 DUNS:	

Facility Location Address

Street 1:	3700 West 190th Street
Street 2:	
City:	Torrance
State:	CALIFORNIA
ZIP:	90509
ZIP4:	2929
County:	LOS ANGELES

Facility Latitude and Longitude

Latitude (decimal):	33.851944
Longitude (decimal):	-118.331389
Lat/Long Method:	Interpolation - Photo
Lat/Long Description:	Center of Facility
Horizontal Accuracy Measure:	25
Horizontal Reference Datum Name:	North American Datum of 1983
Source Map Scale Number:	24000

Owner or Operator

Operator Name:	Exxon Mobil Corporation
Operator Phone:	(310) 212-2800

Mailing Address

Operator Street 1:	3700 West 190th Street
Operator Street 2:	
Operator City:	Torrance
Operator State:	CALIFORNIA
Operator ZIP:	90509
Operator ZIP4:	2929
Operator Foreign State or Province:	
Operator Foreign ZIP:	
Operator Foreign Country:	

Name and title of person or position responsible for Part 68 (RMP) Implementation

RMP Name of Person:	Stephanie Angkadjaja
RMP Title of Person or Position:	Safety Engineer
RMP E-mail Address:	stephanie.angkadjaja@exxonmobil.com

Emergency Contact

Emergency Contact Name:	Joe L. Alvarez
Emergency Contact Title:	Emergency Preparedness Coordinator
Emergency Contact Phone:	(310) 212-2885
Emergency Contact 24-Hour Phone:	(310) 350-0112
Emergency Contact Ext. or PIN:	
Emergency Contact E-mail Address:	joe.l.alvarez@exxonmobil.com

Other Points of Contact

Facility or Parent Company E-mail Address:	
Facility Public Contact Phone:	
Facility or Parent Company WWW Homepage Address:	

Local Emergency Planning Committee

LEPC:	California Region 1 LEPC

Full Time Equivalent Employees

Number of Full Time Employees (FTE) on Site:	800
FTE Claimed as CBI:	

Covered By

OSHA PSM :	Yes
EPCRA 302 :	Yes
CAA Title V:	Yes

Air Operating Permit ID:	800089

OSHA Ranking

OSHA Star or Merit Ranking:	

Last Safety Inspection

Last Safety Inspection (By an External Agency) Date:	01-Jun-2015
Last Safety Inspection Performed By an External Agency:	State environmental agency

Predictive Filing

Did this RMP involve predictive filing?:	

Preparer Information

Preparer Name:	
Preparer Phone:	
Preparer Street 1:	
Preparer Street 2:	
Preparer City:	
Preparer State:	
Preparer ZIP:	
Preparer ZIP4:	
Preparer Foreign State:	
Preparer Foreign Country:	
Preparer Foreign ZIP:	

Confidential Business Information (CBI)

CBI Claimed:	
Substantiation Provided:	
Unsanitized RMP Provided:	

Reportable Accidents

Reportable Accidents:	See Section 6. Accident History below to determine if there were any accidentsreported for this RMP.

Process Chemicals

Process ID:	1000052228
Description:	Cracking and Light Ends
Process Chemical ID:	1000063305
Program Level:	Program Level 3 process
Chemical Name:	Flammable Mixture
CAS Number:	00-11-11
Quantity (lbs):	320000
CBI Claimed:	
Flammable/Toxic:	Flammable

Flammable Mixture Chemical Components

Flammable Mixture Chemical ID:	1000054231
Chemical Name:	Ethane
CAS Number:	74-84-0
Flammable/Toxic:	Flammable
Flammable Mixture Chemical ID:	1000054239
Chemical Name:	Pentane
CAS Number:	109-66-0
Flammable/Toxic:	Flammable
Flammable Mixture Chemical ID:	1000054235
Chemical Name:	Butene
CAS Number:	25167-67-3
Flammable/Toxic:	Flammable
Flammable Mixture Chemical ID:	1000054240
Chemical Name:	Ethylene [Ethene]
CAS Number:	74-85-1
Flammable/Toxic:	Flammable
Flammable Mixture Chemical ID:	1000054232
Chemical Name:	Propylene [1-Propene]
CAS Number:	115-07-1
Flammable/Toxic:	Flammable
Flammable Mixture Chemical ID:	1000054230
Chemical Name:	Methane
CAS Number:	74-82-8
Flammable/Toxic:	Flammable
Flammable Mixture Chemical ID:	1000054241
Chemical Name:	Propane
CAS Number:	74-98-6
Flammable/Toxic:	Flammable
Flammable Mixture Chemical ID:	1000054234
Chemical Name:	Isobutane [Propane, 2-methyl]
CAS Number:	75-28-5
Flammable/Toxic:	Flammable
Flammable Mixture Chemical ID:	1000054233
Chemical Name:	Butane
CAS Number:	106-97-8
Flammable/Toxic:	Flammable
Flammable Mixture Chemical ID:	1000054236
Chemical Name:	1-Butene
CAS Number:	106-98-9
Flammable/Toxic:	Flammable
Flammable Mixture Chemical ID:	1000054238
Chemical Name:	Isopentane [Butane, 2-methyl-]
CAS Number:	78-78-4
Flammable/Toxic:	Flammable
Flammable Mixture Chemical ID:	1000054237

Chemical Name:	1-Pentene
CAS Number:	109-67-1
Flammable/Toxic:	Flammable

Process ID:	1000055028
Description:	Flares, VR, & Fuel Gas
Process Chemical ID:	1000067022
Program Level:	Program Level 1 process
Chemical Name:	Flammable Mixture
CAS Number:	00-11-11
Quantity (lbs):	60000
CBI Claimed:	
Flammable/Toxic:	Flammable

Flammable Mixture Chemical Components

Flammable Mixture Chemical ID:	1000057029
Chemical Name:	2-Butene
CAS Number:	107-01-7
Flammable/Toxic:	Flammable

Flammable Mixture Chemical ID:	1000057031
Chemical Name:	2-Butene-trans [2-Butene, (E)]
CAS Number:	624-64-6
Flammable/Toxic:	Flammable

Flammable Mixture Chemical ID:	1000057030
Chemical Name:	2-Butene-cis
CAS Number:	590-18-1
Flammable/Toxic:	Flammable

Flammable Mixture Chemical ID:	1000057019
Chemical Name:	Hydrogen
CAS Number:	1333-74-0
Flammable/Toxic:	Flammable

Flammable Mixture Chemical ID:	1000057026
Chemical Name:	Isopentane [Butane, 2-methyl-]
CAS Number:	78-78-4
Flammable/Toxic:	Flammable

Flammable Mixture Chemical ID:	1000057027
Chemical Name:	Cyclopropane
CAS Number:	75-19-4
Flammable/Toxic:	Flammable

Flammable Mixture Chemical ID:	1000057022
Chemical Name:	Propane
CAS Number:	74-98-6
Flammable/Toxic:	Flammable

Flammable Mixture Chemical ID:	1000057028
Chemical Name:	1-Butene
CAS Number:	106-98-9

Flammable/Toxic:	Flammable
Flammable Mixture Chemical ID:	1000057020
Chemical Name:	Methane
CAS Number:	74-82-8
Flammable/Toxic:	Flammable
Flammable Mixture Chemical ID:	1000057025
Chemical Name:	Pentane
CAS Number:	109-66-0
Flammable/Toxic:	Flammable
Flammable Mixture Chemical ID:	1000057032
Chemical Name:	Propylene [1-Propene]
CAS Number:	115-07-1
Flammable/Toxic:	Flammable
Flammable Mixture Chemical ID:	1000057024
Chemical Name:	Isobutane [Propane, 2-methyl]
CAS Number:	75-28-5
Flammable/Toxic:	Flammable
Flammable Mixture Chemical ID:	1000057021
Chemical Name:	Ethane
CAS Number:	74-84-0
Flammable/Toxic:	Flammable
Flammable Mixture Chemical ID:	1000057023
Chemical Name:	Butane
CAS Number:	106-97-8
Flammable/Toxic:	Flammable

Process ID:	1000052233
Description:	Oil Movements and Storage
Process Chemical ID:	1000067020
Program Level:	Program Level 3 process
Chemical Name:	Butane
CAS Number:	106-97-8
Quantity (lbs):	14000000
CBI Claimed:	
Flammable/Toxic:	Flammable

Process ID:	1000052229
Description:	Hydroprocessing 1
Process Chemical ID:	1000063306
Program Level:	Program Level 3 process
Chemical Name:	Flammable Mixture
CAS Number:	00-11-11
Quantity (lbs):	130000
CBI Claimed:	
Flammable/Toxic:	Flammable

Flammable Mixture Chemical Components

Flammable Mixture Chemical ID:	1000054244
Chemical Name:	Ethane
CAS Number:	74-84-0
Flammable/Toxic:	Flammable
Flammable Mixture Chemical ID:	1000054246
Chemical Name:	Butane
CAS Number:	106-97-8
Flammable/Toxic:	Flammable
Flammable Mixture Chemical ID:	1000054243
Chemical Name:	Methane
CAS Number:	74-82-8
Flammable/Toxic:	Flammable
Flammable Mixture Chemical ID:	1000054247
Chemical Name:	Isobutane [Propane, 2-methyl]
CAS Number:	75-28-5
Flammable/Toxic:	Flammable
Flammable Mixture Chemical ID:	1000054245
Chemical Name:	Propane
CAS Number:	74-98-6
Flammable/Toxic:	Flammable
Flammable Mixture Chemical ID:	1000054242
Chemical Name:	Hydrogen
CAS Number:	1333-74-0
Flammable/Toxic:	Flammable

Process ID:	1000052230
Description:	Alkylation and Light Ends
Process Chemical ID:	1000063307
Program Level:	Program Level 3 process
Chemical Name:	Hydrogen fluoride/Hydrofluoric acid (conc 50% or greater) [Hydrofluoric acid]
CAS Number:	7664-39-3
Quantity (lbs):	250000
CBI Claimed:	
Flammable/Toxic:	Toxic

Process ID:	1000052233
Description:	Oil Movements and Storage
Process Chemical ID:	1000063311
Program Level:	Program Level 3 process
Chemical Name:	Flammable Mixture
CAS Number:	00-11-11
Quantity (lbs):	24000000
CBI Claimed:	
Flammable/Toxic:	Flammable

Flammable Mixture Chemical Components

Flammable Mixture Chemical ID:	1000054265
Chemical Name:	Isopentane [Butane, 2-methyl-]
CAS Number:	78-78-4
Flammable/Toxic:	Flammable
Flammable Mixture Chemical ID:	1000054267
Chemical Name:	Methane
CAS Number:	74-82-8
Flammable/Toxic:	Flammable
Flammable Mixture Chemical ID:	1000054263
Chemical Name:	1-Butene
CAS Number:	106-98-9
Flammable/Toxic:	Flammable
Flammable Mixture Chemical ID:	1000054261
Chemical Name:	Isobutane [Propane, 2-methyl]
CAS Number:	75-28-5
Flammable/Toxic:	Flammable
Flammable Mixture Chemical ID:	1000054266
Chemical Name:	Pentane
CAS Number:	109-66-0
Flammable/Toxic:	Flammable
Flammable Mixture Chemical ID:	1000054262
Chemical Name:	Propylene [1-Propene]
CAS Number:	115-07-1
Flammable/Toxic:	Flammable
Flammable Mixture Chemical ID:	1000054268
Chemical Name:	Ethane
CAS Number:	74-84-0
Flammable/Toxic:	Flammable
Flammable Mixture Chemical ID:	1000054264
Chemical Name:	Butene
CAS Number:	25167-67-3
Flammable/Toxic:	Flammable
Flammable Mixture Chemical ID:	1000054259
Chemical Name:	Propane
CAS Number:	74-98-6
Flammable/Toxic:	Flammable
Flammable Mixture Chemical ID:	1000054260
Chemical Name:	Butane
CAS Number:	106-97-8
Flammable/Toxic:	Flammable

Process ID:	1000052230

Description:	Alkylation and Light Ends
Process Chemical ID:	1000063308
Program Level:	Program Level 3 process
Chemical Name:	Flammable Mixture
CAS Number:	00-11-11
Quantity (lbs):	1800000
CBI Claimed:	
Flammable/Toxic:	Flammable

Flammable Mixture Chemical Components

Flammable Mixture Chemical ID:	1000054250
Chemical Name:	1-Butene
CAS Number:	106-98-9
Flammable/Toxic:	Flammable

Flammable Mixture Chemical ID:	1000054252
Chemical Name:	Isobutane [Propane, 2-methyl]
CAS Number:	75-28-5
Flammable/Toxic:	Flammable

Flammable Mixture Chemical ID:	1000054251
Chemical Name:	Butane
CAS Number:	106-97-8
Flammable/Toxic:	Flammable

Flammable Mixture Chemical ID:	1000054249
Chemical Name:	Butene
CAS Number:	25167-67-3
Flammable/Toxic:	Flammable

Flammable Mixture Chemical ID:	1000054248
Chemical Name:	Propane
CAS Number:	74-98-6
Flammable/Toxic:	Flammable

Process ID:	1000052231
Description:	Cokers
Process Chemical ID:	1000063309
Program Level:	Program Level 3 process
Chemical Name:	Flammable Mixture
CAS Number:	00-11-11
Quantity (lbs):	100000
CBI Claimed:	
Flammable/Toxic:	Flammable

Flammable Mixture Chemical Components

Flammable Mixture Chemical ID:	1000054253
Chemical Name:	Methane
CAS Number:	74-82-8
Flammable/Toxic:	Flammable

Flammable Mixture Chemical ID:	1000054255

Chemical Name:	Propane
CAS Number:	74-98-6
Flammable/Toxic:	Flammable
Flammable Mixture Chemical ID:	1000054254
Chemical Name:	Ethane
CAS Number:	74-84-0
Flammable/Toxic:	Flammable

Process ID:	1000054765
Description:	Crude Light Ends
Process Chemical ID:	1000066676
Program Level:	Program Level 1 process
Chemical Name:	Flammable Mixture
CAS Number:	00-11-11
Quantity (lbs):	250000
CBI Claimed:	
Flammable/Toxic:	Flammable

Flammable Mixture Chemical Components

Flammable Mixture Chemical ID:	1000057101
Chemical Name:	Methane
CAS Number:	74-82-8
Flammable/Toxic:	Flammable
Flammable Mixture Chemical ID:	1000057098
Chemical Name:	Isobutane [Propane, 2-methyl]
CAS Number:	75-28-5
Flammable/Toxic:	Flammable
Flammable Mixture Chemical ID:	1000057102
Chemical Name:	Butane
CAS Number:	106-97-8
Flammable/Toxic:	Flammable
Flammable Mixture Chemical ID:	1000057097
Chemical Name:	Isopentane [Butane, 2-methyl-]
CAS Number:	78-78-4
Flammable/Toxic:	Flammable
Flammable Mixture Chemical ID:	1000057100
Chemical Name:	Ethane
CAS Number:	74-84-0
Flammable/Toxic:	Flammable
Flammable Mixture Chemical ID:	1000057099
Chemical Name:	Propane
CAS Number:	74-98-6
Flammable/Toxic:	Flammable
Flammable Mixture Chemical ID:	1000057096
Chemical Name:	Pentane
CAS Number:	109-66-0

Flammable/Toxic:	Flammable

Process ID:	1000055027
Description:	Hydroprocesssing 2
Process Chemical ID:	1000067017
Program Level:	Program Level 1 process
Chemical Name:	Flammable Mixture
CAS Number:	00-11-11
Quantity (lbs):	11000
CBI Claimed:	
Flammable/Toxic:	Flammable

Flammable Mixture Chemical Components

Flammable Mixture Chemical ID:	1000057014
Chemical Name:	Methane
CAS Number:	74-82-8
Flammable/Toxic:	Flammable

Flammable Mixture Chemical ID:	1000057018
Chemical Name:	Isobutane [Propane, 2-methyl]
CAS Number:	75-28-5
Flammable/Toxic:	Flammable

Flammable Mixture Chemical ID:	1000057017
Chemical Name:	Butane
CAS Number:	106-97-8
Flammable/Toxic:	Flammable

Flammable Mixture Chemical ID:	1000057013
Chemical Name:	Hydrogen
CAS Number:	1333-74-0
Flammable/Toxic:	Flammable

Flammable Mixture Chemical ID:	1000057016
Chemical Name:	Propane
CAS Number:	74-98-6
Flammable/Toxic:	Flammable

Flammable Mixture Chemical ID:	1000057015
Chemical Name:	Ethane
CAS Number:	74-84-0
Flammable/Toxic:	Flammable

Process ID:	1000052229
Description:	Hydroprocessing 1
Process Chemical ID:	1000066674
Program Level:	Program Level 3 process
Chemical Name:	Ammonia (anhydrous)
CAS Number:	7664-41-7
Quantity (lbs):	14000
CBI Claimed:	

Flammable/Toxic:	Toxic

Process ID:	1000052233
Description:	Oil Movements and Storage
Process Chemical ID:	1000067019
Program Level:	Program Level 3 process
Chemical Name:	Isobutane [Propane, 2-methyl]
CAS Number:	75-28-5
Quantity (lbs):	13000000
CBI Claimed:	
Flammable/Toxic:	Flammable

Process ID:	1000052233
Description:	Oil Movements and Storage
Process Chemical ID:	1000067021
Program Level:	Program Level 3 process
Chemical Name:	Propane
CAS Number:	74-98-6
Quantity (lbs):	1300000
CBI Claimed:	
Flammable/Toxic:	Flammable

Process NAICS

Process ID:	1000052228
Process NAICS ID:	1000052854
Program Level:	Program Level 3 process
NAICS Code:	32411
NAICS Description:	Petroleum Refineries

Process ID:	1000052230
Process NAICS ID:	1000052856
Program Level:	Program Level 3 process
NAICS Code:	32411
NAICS Description:	Petroleum Refineries

Process ID:	1000052231
Process NAICS ID:	1000052857
Program Level:	Program Level 3 process
NAICS Code:	32411
NAICS Description:	Petroleum Refineries

Process ID:	1000052233
Process NAICS ID:	1000052859
Program Level:	Program Level 3 process
NAICS Code:	32411
NAICS Description:	Petroleum Refineries

Process ID:	1000052229
Process NAICS ID:	1000052855
Program Level:	Program Level 3 process
NAICS Code:	32411
NAICS Description:	Petroleum Refineries

Process ID:	1000055027
Process NAICS ID:	1000055871
Program Level:	Program Level 1 process
NAICS Code:	32411
NAICS Description:	Petroleum Refineries

Process ID:	1000055028
Process NAICS ID:	1000055872
Program Level:	Program Level 1 process
NAICS Code:	32411
NAICS Description:	Petroleum Refineries

Process ID:	1000054765
Process NAICS ID:	1000055576
Program Level:	Program Level 1 process
NAICS Code:	32411
NAICS Description:	Petroleum Refineries

Section 2. Toxics: Worst Case

Toxic Worst ID: 1000042581

Percent Weight:	81.0
Physical State:	Gas liquified by pressure
Model Used:	EPA's RMP*Comp(TM)
Release Duration (mins):	10
Wind Speed (m/sec):	1.5
Atmospheric Stability Class:	F
Topography:	Urban

Passive Mitigation Considered

Dikes:	
Enclosures:	
Berms:	
Drains:	
Sumps:	
Other Type:	Release Barriers, Modified HF Catalyst

Section 3. Toxics: Alternative Release

Toxic Alter ID: 1000045211

Percent Weight:	85.0
Physical State:	Gas liquified by pressure
Model Used:	EPA's RMP*Comp(TM)
Wind Speed (m/sec):	3.0
Atmospheric Stability Class:	D
Topography:	Urban

Passive Mitigation Considered

Dikes:	
Enclosures:	
Berms:	
Drains:	
Sumps:	
Other Type:	

Active Mitigation Considered

Sprinkler System:	
Deluge System:	
Water Curtain:	
Neutralization:	
Excess Flow Valve:	
Flares:	
Scrubbers:	
Emergency Shutdown:	Yes
Other Type:	

Toxic Alter ID: 1000047611

Percent Weight:	100.0
Physical State:	Gas liquified by refrigeration
Model Used:	EPA's RMP*Comp(TM)
Wind Speed (m/sec):	3.0
Atmospheric Stability Class:	D
Topography:	Urban

Passive Mitigation Considered

Dikes:	
Enclosures:	
Berms:	
Drains:	
Sumps:	
Other Type:	

Active Mitigation Considered

Sprinkler System:	
Deluge System:	
Water Curtain:	
Neutralization:	
Excess Flow Valve:	
Flares:	
Scrubbers:	

Emergency Shutdown:
Other Type:

Section 4. Flammables: Worst Case

Flammable Worst ID: 1000031266

Model Used:	EPA's RMP*Comp(TM)
Endpoint used:	1 PSI

Passive Mitigation Considered

Blast Walls:	
Other Type:	Dikes, Fire Walls

Flammable Worst ID: 1000031874

Model Used:	EPA's RMP*Comp(TM)
Endpoint used:	1 PSI

Passive Mitigation Considered

Blast Walls:	
Other Type:	

Flammable Worst ID: 1000031876

Model Used:	EPA's RMP*Comp(TM)
Endpoint used:	1 PSI

Passive Mitigation Considered

Blast Walls:	
Other Type:	

Flammable Worst ID: 1000031877

Model Used:	EPA's RMP*Comp(TM)
Endpoint used:	1 PSI

Passive Mitigation Considered

Blast Walls:	
Other Type:	

Section 5. Flammables: Alternative Release

Flammable Alter ID: 1000029317

Model Used:	EPA's RMP*Comp(TM)

Passive Mitigation Considered

Dikes:	
Fire Walls:	
Blast Walls:	
Enclosures:	
Other Type:	

Active Mitigation Considered

Sprinkler System:	Yes
Deluge System:	Yes
Water Curtain:	
Excess Flow Valve:	
Other Type:	

Section 6. Accident History

Accident History ID: 1000039313

Date of Accident:	18-Feb-2015
Time Accident Began (HHMM):	0848
NAICS Code of Process Involved:	32411
NAICS Description:	Petroleum Refineries
Release Duration:	001 Hours 46 Minutes

Release Event

Gas Release:	Yes
Liquid Spill/Evaporation:	Yes
Fire:	
Explosion:	Yes
Uncontrolled/Runaway Reaction:	

Release Source

Storage Vessel:	
Piping:	Yes
Process Vessel:	
Transfer Hose:	
Valve:	
Pump:	
Joint:	
Other Release Source:	electrostatic precipitator

Weather Conditions at the Time of Event

Wind Speed:	6.9
Units:	miles/h
Direction:	ENE
Temperature:	61
Atmospheric Stability Class:	B
Precipitation Present:	
Unknown Weather Conditions:	

On-Site Impacts

Employee or Contractor Deaths:	0
Public Responder Deaths:	0
Public Deaths:	0
Employee or Contractor Injuries:	0
Public Responder Injuries:	0
Public Injuries:	0
On-Site Property Damage ($):	0

Known Off-Site Impacts

Deaths:	0
Hospitalization:	0
Other Medical Treatments:	0
Evacuated:	0

Sheltered-in-Place:	9200
Off-Site Property Damage ($):	0

Environmental Damage

Fish or Animal Kills:	
Tree, Lawn, Shrub, or Crop Damage:	
Water Contamination:	
Soil Contamination:	
Other Environmental Damage:	

Initiating Event

Initiating Event:	Human Error

Contributing Factors

Equipment Failure:	Yes
Human Error:	
Improper Procedures:	Yes
Overpressurization:	
Upset Condition:	
By-Pass Condition:	
Maintenance Activity/Inactivity:	
Process Design Failure:	
Unsuitable Equipment:	
Unusual Weather Condition:	
Management Error:	
Other Contributing Factor:	

Off-Site Responders Notified

Off-Site Responders Notified:	Notified and Responded

Changes Introduced as a Result of the Accident

Improved or Upgraded Equipment:	Yes
Revised Maintenance:	
Revised Training:	Yes
Revised Operating Procedures:	Yes
New Process Controls:	Yes
New Mitigation Systems:	Yes
Revised Emergency Response Plan:	Yes
Changed Process:	
Reduced Inventory:	
None:	
Other Changes Introduced:	

Confidential Business Information

CBI Claimed:	

Chemicals in Accident History

Accident Chemical ID:	1000031518
Quantity Released (lbs):	19000
Percent Weight:	
Chemical Name:	Flammable Mixture
CAS Number:	00-11-11
Flammable/Toxic:	Flammable

Flammable Mixture Chemical Components in Accident History

Accident Chemical Flammable Mixture ID:	1000005061
Chemical Name:	Pentane
Flammable/Toxic:	Flammable

Section 7. Program Level 3

Description

No description available.

Program Level 3 Prevention Program Chemicals

Prevention Program Chemical ID:	1000052966
Chemical Name:	Flammable Mixture
Flammable/Toxic:	Flammable
CAS Number:	00-11-11
Process ID:	1000052228
Description:	Cracking and Light Ends
Prevention Program Level 3 ID:	1000044130
NAICS Code:	32411

Safety Information

Safety Review Date (The date on which the safety information was last reviewed or revised):	30-May-2014

Process Hazard Analysis (PHA)

PHA Completion Date (Date of last PHA or PHA update):	29-Jan-2014

The Technique Used

What If:	
Checklist:	
What If/Checklist:	
HAZOP:	Yes
Failure Mode and Effects Analysis:	
Fault Tree Analysis:	
Other Technique Used:	
PHA Change Completion Date (The expected or actual date of completion of all changes resulting from last PHA or PHA update):	01-Dec-2016

Major Hazards Identified

Toxic Release:	
Fire:	Yes
Explosion:	Yes
Runaway Reaction:	
Polymerization:	
Overpressurization:	Yes
Corrosion:	Yes
Overfilling:	Yes
Contamination:	
Equipment Failure:	Yes
Loss of Cooling, Heating, Electricity, Instrument Air:	Yes

Earthquake:	Yes
Floods (Flood Plain):	
Tornado:	
Hurricanes:	
Other Major Hazard Identified:	

Process Controls in Use

Vents:	Yes
Relief Valves:	Yes
Check Valves:	Yes
Scrubbers:	
Flares:	Yes
Manual Shutoffs:	Yes
Automatic Shutoffs:	Yes
Interlocks:	Yes
Alarms and Procedures:	Yes
Keyed Bypass:	Yes
Emergency Air Supply:	Yes
Emergency Power:	Yes
Backup Pump:	Yes
Grounding Equipment:	Yes
Inhibitor Addition:	
Rupture Disks:	Yes
Excess Flow Device:	Yes
Quench System:	Yes
Purge System:	Yes
None:	
Other Process Control in Use:	

Mitigation Systems in Use

Sprinkler System:	Yes
Dikes:	
Fire Walls:	
Blast Walls:	
Deluge System:	
Water Curtain:	
Enclosure:	
Neutralization:	
None:	
Other Mitigation System in Use:	

Monitoring/Detection Systems in Use

Process Area Detectors:	Yes
Perimeter Monitors:	Yes
None:	
Other Monitoring/Detection System in Use:	

Changes Since Last PHA Update

Reduction in Chemical Inventory:	
Increase in Chemical Inventory:	
Change Process Parameters:	Yes

Installation of Process Controls:	Yes
Installation of Process Detection Systems:	Yes
Installation of Perimeter Monitoring Systems:	
Installation of Mitigation Systems:	Yes
None Recommended:	
None:	
Other Changes Since Last PHA or PHA Update:	

Review of Operating Procedures

Operating Procedures Revision Date (The date of the most recent review or revision of operating procedures):	22-Apr-2014

Training

Training Revision Date (The date of the most recent review or revision of training programs):	15-Apr-2014

The Type of Training Provided

Classroom:	Yes
On the Job:	Yes
Other Training:	Self Study

The Type of Competency Testing Used

Written Tests:	Yes
Oral Tests:	Yes
Demonstration:	Yes
Observation:	Yes
Other Type of Competency Testing Used:	

Maintenance

Maintenance Procedures Revision Date (The date of the most recent review or revision of maintenance procedures):	30-Apr-2014
Equipment Inspection Date (The date of the most recent equipment inspection or test):	15-May-2014
Equipment Tested (Equipment most recently inspected or tested):	Boiler

Management of Change

Change Management Date (The date of the most recent change that triggered management of change procedures):	27-May-2014
Change Management Revision Date (The date of the most recent review or revision of management of change procedures):	01-Nov-2013

Pre-Startup Review

Pre-Startup Review Date (The date of the most recent pre-startup review):	05-May-2014

Compliance Audits

Compliance Audit Date (The date of the most recent compliance audit):	01-Aug-2012
Compliance Audit Change Completion Date (Expected or actual date of completion of all changes resulting from the compliance audit):	01-Jun-2015

Incident Investigation

Incident Investigation Date (The date of the most recent incident investigation (if any)):	07-Feb-2014
Incident Investigation Change Date (The expected or actual date of completion of all changes resulting from the investigation):	13-May-2014

Employee Participation Plans

Participation Plan Revision Date (The date of the most recent review or revision of employee participation plans):	20-May-2014

Hot Work Permit Procedures

Hot Work permit Review Date (The date of the most recent review or revision of hot work permit procedures):	07-Jan-2014

Contractor Safety Procedures

Contractor Safety Procedures Review Date (The date of the most recent review or revision of contractor safety procedures):	04-Jan-2012
Contractor Safety Performance Evaluation Date (The date of the most recent review or revision of contractor safety performance):	05-Jun-2014

Confidential Business Information

CBI Claimed:

Description

No description available.

Program Level 3 Prevention Program Chemicals

Prevention Program Chemical ID:	1000052967
Chemical Name:	Hydrogen fluoride/Hydrofluoric acid (conc 50% or greater) [Hydrofluoric acid]
Flammable/Toxic:	Toxic
CAS Number:	7664-39-3
Process ID:	1000052230
Description:	Alkylation and Light Ends
Prevention Program Level 3 ID:	1000044131
NAICS Code:	32411
Prevention Program Chemical ID:	1000052968
Chemical Name:	Flammable Mixture
Flammable/Toxic:	Flammable
CAS Number:	00-11-11
Process ID:	1000052230
Description:	Alkylation and Light Ends
Prevention Program Level 3 ID:	1000044131
NAICS Code:	32411

Safety Information

Safety Review Date (The date on which the safety information was last reviewed or revised):	23-May-2014

Process Hazard Analysis (PHA)

PHA Completion Date (Date of last PHA or PHA update):	15-Feb-2013

The Technique Used

What If:	
Checklist:	
What If/Checklist:	
HAZOP:	Yes
Failure Mode and Effects Analysis:	
Fault Tree Analysis:	
Other Technique Used:	
PHA Change Completion Date (The expected or actual date of completion of all changes resulting from last PHA or PHA update):	31-Dec-2015

Major Hazards Identified

Toxic Release:	Yes
Fire:	Yes
Explosion:	Yes
Runaway Reaction:	
Polymerization:	
Overpressurization:	Yes
Corrosion:	Yes
Overfilling:	Yes
Contamination:	Yes
Equipment Failure:	Yes
Loss of Cooling, Heating, Electricity, Instrument Air:	Yes
Earthquake:	Yes
Floods (Flood Plain):	
Tornado:	
Hurricanes:	
Other Major Hazard Identified:	

Process Controls in Use

Vents:	Yes
Relief Valves:	Yes
Check Valves:	Yes
Scrubbers:	Yes
Flares:	Yes
Manual Shutoffs:	Yes
Automatic Shutoffs:	Yes
Interlocks:	Yes
Alarms and Procedures:	Yes
Keyed Bypass:	Yes
Emergency Air Supply:	Yes
Emergency Power:	Yes
Backup Pump:	Yes
Grounding Equipment:	Yes
Inhibitor Addition:	
Rupture Disks:	Yes
Excess Flow Device:	Yes
Quench System:	Yes
Purge System:	Yes
None:	
Other Process Control in Use:	

Mitigation Systems in Use

Sprinkler System:	Yes
Dikes:	Yes
Fire Walls:	Yes
Blast Walls:	Yes
Deluge System:	Yes
Water Curtain:	Yes
Enclosure:	Yes
Neutralization:	Yes
None:	
Other Mitigation System in Use:	

Monitoring/Detection Systems in Use

Process Area Detectors:	Yes
Perimeter Monitors:	Yes
None:	
Other Monitoring/Detection System in Use:	Closed Circuit TV

Changes Since Last PHA Update

Reduction in Chemical Inventory:	
Increase in Chemical Inventory:	
Change Process Parameters:	
Installation of Process Controls:	Yes
Installation of Process Detection Systems:	Yes
Installation of Perimeter Monitoring Systems:	
Installation of Mitigation Systems:	
None Recommended:	
None:	
Other Changes Since Last PHA or PHA Update:	

Review of Operating Procedures

Operating Procedures Revision Date (The date of the most recent review or revision of operating procedures):	06-Apr-2014

Training

Training Revision Date (The date of the most recent review or revision of training programs):	15-Apr-2014

The Type of Training Provided

Classroom:	Yes
On the Job:	Yes
Other Training:	Self Study

The Type of Competency Testing Used

Written Tests:	Yes
Oral Tests:	Yes
Demonstration:	Yes
Observation:	Yes
Other Type of Competency Testing Used:	

Maintenance

Maintenance Procedures Revision Date (The date of the most recent review or revision of maintenance procedures):	30-Apr-2014
Equipment Inspection Date (The date of the most recent equipment inspection or test):	13-Feb-2014

Equipment Tested (Equipment most recently inspected or tested):	Tank

Management of Change

Change Management Date (The date of the most recent change that triggered management of change procedures):	28-May-2014
Change Management Revision Date (The date of the most recent review or revision of management of change procedures):	01-Nov-2013

Pre-Startup Review

Pre-Startup Review Date (The date of the most recent pre-startup review):	29-May-2014

Compliance Audits

Compliance Audit Date (The date of the most recent compliance audit):	01-Aug-2012
Compliance Audit Change Completion Date (Expected or actual date of completion of all changes resulting from the compliance audit):	01-Jun-2015

Incident Investigation

Incident Investigation Date (The date of the most recent incident investigation (if any)):	22-Apr-2014
Incident Investigation Change Date (The expected or actual date of completion of all changes resulting from the investigation):	23-May-2014

Employee Participation Plans

Participation Plan Revision Date (The date of the most recent review or revision of employee participation plans):	20-May-2014

Hot Work Permit Procedures

Hot Work permit Review Date (The date of the most recent review or revision of hot work permit procedures):	07-Jan-2014

Contractor Safety Procedures

Contractor Safety Procedures Review Date (The date of the most recent review or revision of contractor safety procedures):	04-Jan-2012
Contractor Safety Performance Evaluation Date (The date of the most recent review or revision of contractor safety performance):	05-Jun-2014

Confidential Business Information

CBI Claimed:

Description

No description available.

Program Level 3 Prevention Program Chemicals

Prevention Program Chemical ID:	1000052969
Chemical Name:	Flammable Mixture
Flammable/Toxic:	Flammable
CAS Number:	00-11-11
Process ID:	1000052231
Description:	Cokers
Prevention Program Level 3 ID:	1000044132
NAICS Code:	32411

Safety Information

Safety Review Date (The date on which the safety information was last reviewed or revised):	30-May-2014

Process Hazard Analysis (PHA)

PHA Completion Date (Date of last PHA or PHA update):	02-May-2014

The Technique Used

What If:	
Checklist:	
What If/Checklist:	
HAZOP:	Yes
Failure Mode and Effects Analysis:	
Fault Tree Analysis:	
Other Technique Used:	
PHA Change Completion Date (The expected or actual date of completion of all changes resulting from last PHA or PHA update):	31-Dec-2016

Major Hazards Identified

Toxic Release:	Yes
Fire:	Yes
Explosion:	Yes
Runaway Reaction:	
Polymerization:	
Overpressurization:	Yes
Corrosion:	Yes
Overfilling:	Yes
Contamination:	
Equipment Failure:	Yes
Loss of Cooling, Heating, Electricity, Instrument Air:	Yes
Earthquake:	Yes

Floods (Flood Plain):	
Tornado:	
Hurricanes:	
Other Major Hazard Identified:	

Process Controls in Use

Vents:	Yes
Relief Valves:	Yes
Check Valves:	Yes
Scrubbers:	
Flares:	Yes
Manual Shutoffs:	Yes
Automatic Shutoffs:	Yes
Interlocks:	Yes
Alarms and Procedures:	Yes
Keyed Bypass:	Yes
Emergency Air Supply:	Yes
Emergency Power:	Yes
Backup Pump:	Yes
Grounding Equipment:	Yes
Inhibitor Addition:	
Rupture Disks:	Yes
Excess Flow Device:	
Quench System:	
Purge System:	
None:	
Other Process Control in Use:	

Mitigation Systems in Use

Sprinkler System:	Yes
Dikes:	
Fire Walls:	
Blast Walls:	
Deluge System:	
Water Curtain:	
Enclosure:	
Neutralization:	
None:	
Other Mitigation System in Use:	

Monitoring/Detection Systems in Use

Process Area Detectors:	Yes
Perimeter Monitors:	Yes
None:	
Other Monitoring/Detection System in Use:	

Changes Since Last PHA Update

Reduction in Chemical Inventory:	
Increase in Chemical Inventory:	
Change Process Parameters:	
Installation of Process Controls:	Yes

Installation of Process Detection Systems:	Yes
Installation of Perimeter Monitoring Systems:	
Installation of Mitigation Systems:	
None Recommended:	
None:	
Other Changes Since Last PHA or PHA Update:	

Review of Operating Procedures

Operating Procedures Revision Date (The date of the most recent review or revision of operating procedures):	08-Jun-2014

Training

Training Revision Date (The date of the most recent review or revision of training programs):	15-Apr-2014

The Type of Training Provided

Classroom:	Yes
On the Job:	Yes
Other Training:	Self Study

The Type of Competency Testing Used

Written Tests:	Yes
Oral Tests:	Yes
Demonstration:	Yes
Observation:	Yes
Other Type of Competency Testing Used:	

Maintenance

Maintenance Procedures Revision Date (The date of the most recent review or revision of maintenance procedures):	30-Apr-2014
Equipment Inspection Date (The date of the most recent equipment inspection or test):	24-Apr-2014
Equipment Tested (Equipment most recently inspected or tested):	Heat Exchanger

Management of Change

Change Management Date (The date of the most recent change that triggered management of change procedures):	28-May-2014
Change Management Revision Date (The date of the most recent review or revision of management of change procedures):	01-Nov-2013

Pre-Startup Review

Pre-Startup Review Date (The date of the most recent pre-startup review):	27-May-2014

Compliance Audits

Compliance Audit Date (The date of the most recent compliance audit):	01-Aug-2012
Compliance Audit Change Completion Date (Expected or actual date of completion of all changes resulting from the compliance audit):	01-Jun-2015

Incident Investigation

Incident Investigation Date (The date of the most recent incident investigation (if any)):	16-May-2014
Incident Investigation Change Date (The expected or actual date of completion of all changes resulting from the investigation):	16-May-2014

Employee Participation Plans

Participation Plan Revision Date (The date of the most recent review or revision of employee participation plans):	20-May-2014

Hot Work Permit Procedures

Hot Work permit Review Date (The date of the most recent review or revision of hot work permit procedures):	07-Jan-2014

Contractor Safety Procedures

Contractor Safety Procedures Review Date (The date of the most recent review or revision of contractor safety procedures):	04-Jan-2012
Contractor Safety Performance Evaluation Date (The date of the most recent review or revision of contractor safety performance):	05-Jun-2014

Confidential Business Information

CBI Claimed:

Description

No description available.

Program Level 3 Prevention Program Chemicals

Prevention Program Chemical ID:	1000052970
Chemical Name:	Flammable Mixture
Flammable/Toxic:	Flammable
CAS Number:	00-11-11
Process ID:	1000052233
Description:	Oil Movements and Storage
Prevention Program Level 3 ID:	1000044133
NAICS Code:	32411

Safety Information

Safety Review Date (The date on which the safety information was last reviewed or revised):	19-May-2014

Process Hazard Analysis (PHA)

PHA Completion Date (Date of last PHA or PHA update):	14-Nov-2010

The Technique Used

What If:	
Checklist:	
What If/Checklist:	
HAZOP:	Yes
Failure Mode and Effects Analysis:	
Fault Tree Analysis:	
Other Technique Used:	
PHA Change Completion Date (The expected or actual date of completion of all changes resulting from last PHA or PHA update):	15-May-2016

Major Hazards Identified

Toxic Release:	
Fire:	Yes
Explosion:	Yes
Runaway Reaction:	
Polymerization:	
Overpressurization:	Yes
Corrosion:	Yes
Overfilling:	Yes
Contamination:	Yes
Equipment Failure:	Yes
Loss of Cooling, Heating, Electricity, Instrument Air:	Yes
Earthquake:	Yes

Floods (Flood Plain):	
Tornado:	
Hurricanes:	
Other Major Hazard Identified:	

Process Controls in Use

Vents:	Yes
Relief Valves:	Yes
Check Valves:	Yes
Scrubbers:	
Flares:	Yes
Manual Shutoffs:	Yes
Automatic Shutoffs:	Yes
Interlocks:	Yes
Alarms and Procedures:	Yes
Keyed Bypass:	Yes
Emergency Air Supply:	Yes
Emergency Power:	Yes
Backup Pump:	Yes
Grounding Equipment:	Yes
Inhibitor Addition:	
Rupture Disks:	Yes
Excess Flow Device:	
Quench System:	
Purge System:	
None:	
Other Process Control in Use:	

Mitigation Systems in Use

Sprinkler System:	Yes
Dikes:	Yes
Fire Walls:	Yes
Blast Walls:	
Deluge System:	Yes
Water Curtain:	Yes
Enclosure:	
Neutralization:	
None:	
Other Mitigation System in Use:	

Monitoring/Detection Systems in Use

Process Area Detectors:	Yes
Perimeter Monitors:	Yes
None:	
Other Monitoring/Detection System in Use:	

Changes Since Last PHA Update

Reduction in Chemical Inventory:	
Increase in Chemical Inventory:	
Change Process Parameters:	
Installation of Process Controls:	Yes

Installation of Process Detection Systems:	Yes
Installation of Perimeter Monitoring Systems:	
Installation of Mitigation Systems:	Yes
None Recommended:	
None:	
Other Changes Since Last PHA or PHA Update:	

Review of Operating Procedures

Operating Procedures Revision Date (The date of the most recent review or revision of operating procedures):	23-May-2014

Training

Training Revision Date (The date of the most recent review or revision of training programs):	15-Apr-2014

The Type of Training Provided

Classroom:	Yes
On the Job:	Yes
Other Training:	Self Study

The Type of Competency Testing Used

Written Tests:	Yes
Oral Tests:	Yes
Demonstration:	Yes
Observation:	Yes
Other Type of Competency Testing Used:	

Maintenance

Maintenance Procedures Revision Date (The date of the most recent review or revision of maintenance procedures):	30-Apr-2014
Equipment Inspection Date (The date of the most recent equipment inspection or test):	15-May-2014
Equipment Tested (Equipment most recently inspected or tested):	Piping

Management of Change

Change Management Date (The date of the most recent change that triggered management of change procedures):	28-May-2014
Change Management Revision Date (The date of the most recent review or revision of management of change procedures):	01-Nov-2013

Pre-Startup Review

Pre-Startup Review Date (The date of the most recent pre-startup review):	21-May-2014

Compliance Audits

Compliance Audit Date (The date of the most recent compliance audit):	01-Aug-2012
Compliance Audit Change Completion Date (Expected or actual date of completion of all changes resulting from the compliance audit):	01-Jun-2015

Incident Investigation

Incident Investigation Date (The date of the most recent incident investigation (if any)):	25-Mar-2014
Incident Investigation Change Date (The expected or actual date of completion of all changes resulting from the investigation):	25-Mar-2014

Employee Participation Plans

Participation Plan Revision Date (The date of the most recent review or revision of employee participation plans):	20-May-2014

Hot Work Permit Procedures

Hot Work permit Review Date (The date of the most recent review or revision of hot work permit procedures):	07-Jan-2014

Contractor Safety Procedures

Contractor Safety Procedures Review Date (The date of the most recent review or revision of contractor safety procedures):	04-Jan-2012
Contractor Safety Performance Evaluation Date (The date of the most recent review or revision of contractor safety performance):	05-Jun-2014

Confidential Business Information

CBI Claimed:

Description

No description available.

Program Level 3 Prevention Program Chemicals

Prevention Program Chemical ID:	1000055335
Chemical Name:	Ammonia (anhydrous)
Flammable/Toxic:	Toxic
CAS Number:	7664-41-7
Process ID:	1000052229
Description:	Hydroprocessing 1
Prevention Program Level 3 ID:	1000045842
NAICS Code:	32411
Prevention Program Chemical ID:	1000055334
Chemical Name:	Flammable Mixture
Flammable/Toxic:	Flammable
CAS Number:	00-11-11
Process ID:	1000052229
Description:	Hydroprocessing 1
Prevention Program Level 3 ID:	1000045842
NAICS Code:	32411

Safety Information

Safety Review Date (The date on which the safety information was last reviewed or revised):	30-May-2014

Process Hazard Analysis (PHA)

PHA Completion Date (Date of last PHA or PHA update):	17-Jun-2011

The Technique Used

What If:	
Checklist:	
What If/Checklist:	
HAZOP:	Yes
Failure Mode and Effects Analysis:	
Fault Tree Analysis:	
Other Technique Used:	
PHA Change Completion Date (The expected or actual date of completion of all changes resulting from last PHA or PHA update):	31-Dec-2016

Major Hazards Identified

Toxic Release:	Yes
Fire:	Yes
Explosion:	Yes
Runaway Reaction:	Yes
Polymerization:	
Overpressurization:	Yes
Corrosion:	Yes
Overfilling:	Yes
Contamination:	
Equipment Failure:	Yes
Loss of Cooling, Heating, Electricity, Instrument Air:	
Earthquake:	Yes
Floods (Flood Plain):	
Tornado:	
Hurricanes:	
Other Major Hazard Identified:	

Process Controls in Use

Vents:	Yes
Relief Valves:	Yes
Check Valves:	Yes
Scrubbers:	
Flares:	Yes
Manual Shutoffs:	Yes
Automatic Shutoffs:	Yes
Interlocks:	Yes
Alarms and Procedures:	Yes
Keyed Bypass:	Yes
Emergency Air Supply:	Yes
Emergency Power:	Yes
Backup Pump:	Yes
Grounding Equipment:	Yes
Inhibitor Addition:	
Rupture Disks:	Yes
Excess Flow Device:	
Quench System:	Yes
Purge System:	
None:	
Other Process Control in Use:	

Mitigation Systems in Use

Sprinkler System:	Yes
Dikes:	
Fire Walls:	
Blast Walls:	
Deluge System:	
Water Curtain:	
Enclosure:	
Neutralization:	
None:	
Other Mitigation System in Use:	

Monitoring/Detection Systems in Use

Process Area Detectors:	Yes
Perimeter Monitors:	Yes
None:	
Other Monitoring/Detection System in Use:	

Changes Since Last PHA Update

Reduction in Chemical Inventory:	
Increase in Chemical Inventory:	
Change Process Parameters:	
Installation of Process Controls:	
Installation of Process Detection Systems:	
Installation of Perimeter Monitoring Systems:	
Installation of Mitigation Systems:	
None Recommended:	
None:	Yes
Other Changes Since Last PHA or PHA Update:	

Review of Operating Procedures

Operating Procedures Revision Date (The date of the most recent review or revision of operating procedures):	30-May-2014

Training

Training Revision Date (The date of the most recent review or revision of training programs):	15-Apr-2014

The Type of Training Provided

Classroom:	Yes
On the Job:	Yes
Other Training:	Self Study

The Type of Competency Testing Used

Written Tests:	Yes
Oral Tests:	Yes
Demonstration:	Yes
Observation:	Yes
Other Type of Competency Testing Used:	

Maintenance

Maintenance Procedures Revision Date (The date of the most recent review or revision of maintenance procedures):	30-Apr-2014
Equipment Inspection Date (The date of the most recent equipment inspection or test):	15-May-2014

Equipment Tested (Equipment most recently inspected or tested):	Fin Fan Cooler

Management of Change

Change Management Date (The date of the most recent change that triggered management of change procedures):	29-May-2014
Change Management Revision Date (The date of the most recent review or revision of management of change procedures):	01-Nov-2013

Pre-Startup Review

Pre-Startup Review Date (The date of the most recent pre-startup review):	10-Jun-2014

Compliance Audits

Compliance Audit Date (The date of the most recent compliance audit):	01-Aug-2012
Compliance Audit Change Completion Date (Expected or actual date of completion of all changes resulting from the compliance audit):	01-Jun-2015

Incident Investigation

Incident Investigation Date (The date of the most recent incident investigation (if any)):	29-Apr-2014
Incident Investigation Change Date (The expected or actual date of completion of all changes resulting from the investigation):	21-May-2014

Employee Participation Plans

Participation Plan Revision Date (The date of the most recent review or revision of employee participation plans):	20-May-2014

Hot Work Permit Procedures

Hot Work permit Review Date (The date of the most recent review or revision of hot work permit procedures):	07-Jan-2014

Contractor Safety Procedures

Contractor Safety Procedures Review Date (The date of the most recent review or revision of contractor safety procedures):	04-Jan-2012
Contractor Safety Performance Evaluation Date (The date of the most recent review or revision of contractor safety performance):	05-Jun-2014

Confidential Business Information

CBI Claimed:

Section 8. Program Level 2

No records found.

Section 9. Emergency Response

Written Emergency Response (ER) Plan

Community Plan (Is facility included in written community emergency response plan?):	Yes
Facility Plan (Does facility have its own written emergency response plan?):	Yes
Response Actions (Does ER plan include specific actions to be taken in response to accidental releases of regulated substance(s)?):	Yes
Public Information (Does ER plan include procedures for informing the public and local agencies responding to accidental release?):	Yes
Healthcare (Does facility's ER plan include information on emergency health care?):	Yes

Emergency Response Review

Review Date (Date of most recent review or update of facility's ER plan):	01-Dec-2013

Emergency Response Training

Training Date (Date of most recent review or update of facility's employees):	01-May-2014

Local Agency

Agency Name (Name of local agency with which the facility ER plan or response activities are coordinated):	Torrance Fire Department
Agency Phone Number (Phone number of local agency with which the facility ER plan or response activities are coordinated):	(310) 781-7042

Subject to

OSHA Regulations at 29 CFR 1910.38:	Yes
OSHA Regulations at 29 CFR 1910.120:	Yes
Clean Water Regulations at 40 CFR 112:	Yes
RCRA Regulations at CFR 264, 265, and 279.52:	Yes
OPA 90 Regulations at 40 CFR 112, 33 CFR 154, 49 CFR 194, or 30 CFR 254:	Yes
State EPCRA Rules or Laws:	Yes
Other (Specify):	

Executive Summary

ExxonMobil Torrance Refinery Risk Management Plan Executive Summary

1. Accidental Release Prevention and Emergency Response Policies

The ExxonMobil Torrance Refinery has a long-standing commitment to worker and public safety and protecting the environment. This commitment is demonstrated by the resources invested in accident prevention, such as personnel training and considering safety in the design, installation, operation, and maintenance of our processes. The objective is to implement effective controls to prevent releases of regulated substances. However, if a release does occur, the refinery's trained personnel will respond to control, contain, and mitigate the release.

ExxonMobil Corporation enhanced its safety programs in 1991 by implementing a set of structured safety management systems entitled Operations Integrity Management Systems (OIMS). In 1997, Lloyds Register Quality Assurance reviewed OIMS and evaluated it against an international standard for Environmental Management Systems (ISO 14001) to determine if OIMS is equivalent to the requirements of ISO 14001. After an extensive review, which included a number of audits of various ExxonMobil Corporation facilities, Lloyds concluded that the environmental components of the OIMS are consistent with the intent and meet the requirements of the ISO 14001 Environmental Management Standard. They went on to say, "We further believe ExxonMobil Corporation to be among the industry leaders in the extent to which environmental management considerations have been integrated into its ongoing business processes."

2. Description of the Stationary Source and Regulated Substances Handled

The ExxonMobil Torrance Refinery, located in Torrance, California, U.S.A., operates a variety of processes to produce petroleum products (e.g. propane, butane, gasoline products, jet fuels, diesel fuels, asphalt and coke) from crude oil. The refinery contains a threshold quantity of several regulated flammable substances, and two toxic substances, Hydrofluoric acid and anhydrous ammonia.

In accordance with 40 CFR 68.150, ExxonMobil Torrance Refinery has prepared a 5-year update to the previous 2009 Risk Management Plan (RMP). The refinery contains a total of eight covered processes for the purpose of this plan. Each process is shown below along with the regulated materials contained within the process:

Crude Light Ends (U7,U12) - Flammables
Cracking & Light Ends (U2,U8) - Flammables
Hydroprocessing 1 (U3, U20, U24, U25) - Ammonia, Flammables
Hydroprocessing 2 (U4, U6, U19) - Flammables
Alkylation & Light Ends (U5, U9, U10) - HF Acid, Flammables
Cokers (U21, U22) - Flammables
Oil Movement & Storage - Flammables
Flare & Vapor Recovery - Flammables

3. Five-Year Accident History

There have been no incidents covered by 40CFR Part 68 at the ExxonMobil Torrance Refinery during the past 5 years.

4. General Accidental Release Prevention Program

General Accidental Release Prevention Program Steps

The following is a summary of the general accident prevention program in place at the ExxonMobil Torrance Refinery. After an overview of the prevention program, this section will cover the following elements: Employee Participation, Process Safety Information, Process Hazard Analysis, Operating Procedures, Training, Contractors, Pre-startup Safety Reviews, Mechanical Integrity, Safe Work Practices, Management of Changes, Incident Investigation, and Compliance Audits.

ExxonMobil Corporation has implemented Operations Integrity Management Systems (OIMS) at each of its operations worldwide

that include the aspects of EPA's prevention program and this summary describes OIMS. As already mentioned, OIMS has been attested as equivalent to ISO 14001 as an effective management system to oversee the implementation of the risk management activities.

The following shows how OIMS at ExxonMobil Torrance Refinery is structured to address each element of the General Accidental Release Prevention Program:

Employee Participation. OIMS 1.1, Management Leadership, Commitment and Accountability
Process Safety Information. OIMS 4.1, Refinery Documentation

Hazard Assessment. OIMS 2.1, Risk Assessment and Management
Operating Procedures. OIMS 6.1, Operations and Maintenance Procedures
Training. OIMS 5.4, Training
Contractor Safety. OIMS 8.1, Contractor Management
Pre-Startup Safety Reviews (PSSRs). OIMS 3.1, Facilities Design and Construction
Mechanical Integrity. OIMS 6.4, Mechanical Integrity
Safe Work Practices. OIMS 5.1, Personnel Safety
Management of Change. OIMS 7.1, Management of Change
Incident Investigation. OIMS 9.1, Incident Investigation and Analysis
Compliance Audits. The PSM Assessment Program, under OIMS 11.1, Assessment and Improvement

Employee Participation

The ExxonMobil Torrance Refinery encourages employees in all facets of process safety management and accident prevention. Examples of employee participation range from updating and compiling operating and maintenance procedures to participating as a member of process hazard analysis (PHA) team. Employees have access to information created as part of the refinery accident prevention program. The Employee Participation Plan is formally communicated to the Joint Health & Safety Committee which consists of employees from Management (salaried), the USW (United Steel Workers) representatives and the IBEW (International Brotherhood of Electrical Workers) representatives.

Process Safety Information

The ExxonMobil Torrance Refinery keeps a variety of documents that are used to help maintain safe operation of the processes. These documents address chemical properties and associated hazards, limits for key process parameters and specific chemical inventories, and equipment design basis/configuration information. Specific groups within the refinery are assigned responsibility for maintaining up-to-date process safety information.

Chemical-specific information, including exposure hazards and emergency response/exposure treatment consideration, is provided in material safety data sheets (MSDSs). This information is supplemented by documents that specifically address known corrosion concerns and any known hazards associated with the inadvertent mixing of chemicals. For specific process areas, the refinery has identified Operating Envelopes; i.e. documented safety-related limits for specific process parameters such as temperature, level, and compositions. The refinery ensures that the process is maintained within these limits using computerized process controls and monitoring instruments, highly trained personnel, and protective systems (e.g., automated shutdown systems, alarm systems, pressure relieving systems).

The refinery also maintains numerous documents that provide information about the design and construction of process equipment. These documents include information such as materials of construction, design pressure and temperature ratings, and electrical rating of equipment. This information, in combination with written procedures and trained personnel, provides a basis for establishing inspection and maintenance activities, as well as for evaluating proposed process and facility changes to ensure that safety features in the process are not compromised.

Process Hazard Analysis

The ExxonMobil Torrance Refinery has a comprehensive program to help ensure that hazards associated with the various processes are identified and controlled. Within this program, each process is systematically examined to identify hazards and ensure that adequate controls are in place to manage these hazards.

The ExxonMobil Torrance Refinery primarily uses the Knowledge Based Hazard and Operability (HAZOP) study that is an adaptation of widely used industry methodologies to perform these evaluations. HAZOP analysis is recognized as a systematic and thorough hazard evaluation technique. These analyses are conducted using a team of people who have operating experience and engineering expertise on the process to be evaluated.
The PHA team identifies and evaluates hazards on the process as well as accident prevention and mitigation measures, and makes suggestions for additional prevention and/or mitigation measures when the team believes such measures are necessary.

Operating Procedures

The ExxonMobil Torrance Refinery maintains written procedures that address various modes of process operations, such as;

(1) Startup,
(2) shutdown,
(3) normal,
(4) temporary
(5) maintenance
(6) safety standards and
(5) emergency operations.
These procedures are used as a reference by experienced operators and provide a consistent basis for training of new operators. The procedures are kept current and accurate by reviewing them periodically, and revising them as necessary to reflect changes made through the management of change process. These procedures are annually certified as current and accurate.

The refinery has identified Operating Envelopes; i.e. documented safety-related limits for specific process parameters such as temperature, level, and compositions. This information, along with written operating procedures, is readily available to operators in the process unit and for other personnel to use as necessary to safely perform their job tasks.

Training

To complement the written procedures for process operations, the ExxonMobil Torrance Refinery has implemented a comprehensive training program for all employees involved in operating a process. New employees receive basic training in refinery operations. After successfully completing this training, a new operator is paired with an experienced operator to learn process-specific duties and tasks. After employees demonstrate (e.g., through tests, skills demonstrations) they have adequate knowledge to perform the duties and tasks in a safe manner on their own, they can work independently

Training is also provided for each employee involved in maintaining the ongoing integrity of process equipment. This training includes an overview of the refining process and its hazards. Training is provided on specific procedures applicable to the employee's job tasks to assure that the employees can perform the job tasks in a safe manner.

Contractors

The ExxonMobil Torrance Refinery uses contractors to supplement its workforce. Contractors are contractually obligated to adhere to all safety rules and practices applicable to ExxonMobil Corporation employees. Because some contractors work on or near process equipment, the refinery has a system in place to ensure that contractors:

(1) perform their work in a safe manner,
(2) have the appropriate knowledge and skills,
(3) are aware of the hazards in their work area,
(4) understand what they should do in the event of an emergency,
(5) understand and follow site safety rules, and
(6) inform refinery personnel of any hazards that they find during work.

In addition, the ExxonMobil Torrance Refinery evaluates contractor safety programs and performance during the selection of a contractor. Refinery personnel periodically monitor contractor performance to ensure that contractors are fulfilling their safety obligations.

Mechanical Integrity

The ExxonMobil Torrance Refinery has well-established practices and procedures to maintain pressure vessels, piping systems, relief and vent systems, control instruments, pumps and compressors, and emergency shutdown systems in a safe operating condition. The basic aspects of this program include:

(1) conducting training,
(2) developing written procedures,
(3) performing inspections and tests,
(4) correcting identified deficiencies, and
(5) applying quality assurance measures.

In combination, these activities form a system that maintains the mechanical integrity of the process equipment. Maintenance personnel receive training on:

(1) an overview of the processes,
(2) safety and health hazards,
(3) applicable maintenance procedures,
(4) emergency response plans, and
(5) applicable safe work practices to help ensure that they can perform their job in a safe manner.

Written procedures help ensure that work is performed in a consistent manner and provide a basis for training. Inspections and tests are performed to help ensure that equipment functions as intended, and to verify that equipment is within acceptable limits (e.g., adequate wall thickness for pressure vessels). If a deficiency is identified, employees will correct the deficiency before placing the equipment back into service (if possible), or else the equipment use will be reviewed to determine what actions are necessary to ensure the continued safe operation of the equipment.

Another integral part of the mechanical integrity program is quality assurance. The ExxonMobil Torrance Refinery incorporates quality assurance measures into equipment purchases and repairs. This helps ensure that new equipment is suitable for its intended use and that proper materials and spare parts are used and available when repairs are made.

Safe Work Practices

The ExxonMobil Torrance Refinery has long-standing safe work practices in place to help ensure worker and process safety. These include orientations for visitors/contractors, control of the entry/exit of support personnel, energy isolation for equipment being worked on, procedures for the safe removal of hazardous materials before opening of process piping/equipment, hot work permit/procedure to safely manage spark- producing activities, control of vehicle entry into process area, confined space entry permit/procedure to help ensure precautions are taken before entering confined spaces, and job safety analyses to identify and mitigate hazards associated with maintenance tasks. These practices, along with related procedures and training of affected personnel, form a system to help ensure operations and maintenance activities are performed safely. These practices are primarily documented in three locations: the Safety Manual, the Refinery Maintenance Procedures, and the Safety Practices Manual.

Management of Change

The ExxonMobil Torrance Refinery has a comprehensive system to manage changes to process. This system requires that changes to items such as process equipment, chemicals, technology, procedures, and other facility changes are properly reviewed and authorized before being implemented. Changes are reviewed to:

(1) ensure that adequate controls are in place to manage any new hazards and

(2) verify that existing controls have not been compromised by the change.

Affected chemical hazard information, process operating limits, and equipment information, as well as procedures are updated to incorporate these changes. In addition, operations personnel are notified, and provided any necessary training before the change is implemented.

Incident Investigation

The ExxonMobil Torrance Refinery promptly investigates all incidents that resulted in, or reasonably could have resulted in, a fire/explosion, toxic gas release, major property damage, environmental impact or personnel injury. The goal of each investigation is to determine the facts and develop corrective actions to prevent a recurrence of the incident or a similar incident. The investigation team documents its findings, develops recommendations to prevent a recurrence, and forwards these results to refinery management for resolution. Corrective actions taken in response to the investigation team's findings and recommendations are tracked until they are resolved.

Compliance Audits

To help ensure that the accident prevention program is functioning properly, the ExxonMobil Torrance Refinery periodically conducts audits to determine whether the procedures and practices required by the Refinery's accident prevention program are being properly implemented. Compliance audits are conducted at least every 3 years. The audit team develops findings that are forwarded to refinery management for resolution. Corrective actions taken in response to the audit team's findings are tracked until they are complete. The resolution of each finding is documented, and the two most recent audit reports are retained.

In addition, a periodic internal assessment of refinery management systems is conducted to ensure they are functioning as intended. Work plans are developed and tracked for systems where the assessment team has identified improvement opportunities.

5. Chemical Specific Prevention Steps

The processes at the ExxonMobil Torrance Refinery have hazards that must be managed to ensure continued safe operation. The accident prevention program summarized previously is applied to all covered processes
at the ExxonMobil Torrance Refinery. Collectively, these prevention program activities help prevent potential accident scenarios that could be caused by equipment failures and human error.

In addition to the accident prevention program activities, the Torrance Refinery has safety features on many units to help (1) quickly detect a release, (2) contain/control a release and (3) reduce the consequences of (mitigate) a release. The safety features used within various processes includes but not limited to:

Release Detection
Hydrocarbon detectors with alarms
Hydrofluoric acid detectors with alarms
TV surveillance cameras

Release Containment/Control
Process relief valves that discharge to a flare to capture and incinerate episodic releases
Valves to permit isolation of the process (manual or automated)
Automated shutdown systems for specific process parameters (e.g., high level, high temperature)
Curbing or diking to contain liquid releases
Redundant equipment and instrumentation
Atmospheric relief devices

Release Mitigation
Fire suppression and extinguishing systems
Deluge system for specific equipment
Trained emergency response personnel

Personal protective equipment (e.g., protective clothing, self-contained breathing apparatus)
Blast-resistant buildings to help protect control systems and personnel

HF Acid Specific Prevention Steps

ExxonMobil has always had risk management programs that are specific to the HF alkylation process to address prevention, early detection and mitigation. Since 1999, additional enhanced risk management strategies have been implemented to supplement these historical programs. The following are specific programs and technologies that have been implemented on the HF alkylation unit at the Torrance Refinery:

HF acid additive technology
HF acid detectors to provide quick notification of a release
Emergency block valving to isolate a leak
Rapid acid transfer to an off-site vessel
Physical barriers for acid-containing equipment
Flexible barriers around all flanges in concentrated acid service
Video capabilities that include digital recording and automatic playback
External HF alkylation safety audits by external teams
Remotely operated water monitors to aid in vapor suppression
Remote water monitor controls at the refinery control center
Secondary HF detection system using line of sight technology

6. Emergency Response Program Information

The ExxonMobil Torrance Refinery maintains a written emergency response program, which is in place to protect worker and public safety as well as the environment. The program consists of procedures for responding to a loss of containment, including possibility of a fire or explosion if a flammable substance is accidentally released. The procedures address all aspects of emergency response, including proper first aid and medical treatment for exposures, evacuation plans and accounting for personnel after an evacuation, notification of local emergency response agencies and the public if a release occurs, and post incident cleanup and decontamination requirements. In addition, the ExxonMobil Torrance Refinery has procedures that address maintenance, inspection, and testing of emergency response equipment, as well as instructions that address the use of emergency response equipment. Employees receive training in these procedures as
necessary to perform their specific emergency response duties. The emergency response program is updated when necessary based on modifications made to refinery processes or other refinery facilities.

The overall emergency response program for the ExxonMobil Torrance Refinery is in conformance with NIMS, and is coordinated with the City of Torrance Fire Department, and conducts periodic emergency drills with the city fire department. The refinery has around-the-clock communications capability with officials and emergency response organizations (e.g., City of Torrance Fire Department). This provides a means of notifying the public of an incident as well as facilitating quick response to an incident.

7. Planned Changes to Improve Safety

The Operations Integrity Management System forms the cornerstone for continuous improvement in the ExxonMobil Torrance Refinery's safety-related systems. Under OIMS 11.1 "Assessments and Improvements, these systems are kept evergreen and are in a continuous state of improvement, usually through improvement steps such as implementation of recommendations from hazard reviews and any incident investigations. Some specific examples of these steps include enhancing the sites verification and validation activities to ensure corrective actions properly address the findings and recommendations from hazard review & investigations; and increasing the effectiveness of critical procedures, alarms, and other integrated systems.